

CLAIMS

What is claimed is:

1. A method for certifying the plumbing system of a structure comprising:
 - (a) establishing requirements for plumbing systems applicable to said structure;
 - (b) inspecting the plumbing system of the structure to produce information relative to said requirements;
 - (c) comparing the requirements for said plumbing systems to said produced information to determine the degree of compliance; and,
 - (d) certifying the compliance of said plumbing system with said information including indication that the system is in total or partial non-compliance.
2. The method for certifying the plumbing system of a structure of claim 1 wherein said requirements are selected from a group consisting of building plumbing codes, building plans, and combinations thereof.
3. The method for certifying the plumbing system of a structure of claim 1 wherein said plumbing system is selected from a group consisting of water supply systems, ground/storm water systems, sewage/drainage systems, and combinations thereof.
4. The method for certifying the plumbing system of a structure of claim 1 wherein said establishing step includes, in part, populating a template with plumbing codes in the area in which the structure is located.
5. The method for certifying the plumbing system of a structure of claim 4 wherein said establishing step includes, in part, populating a template with plumbing codes in the

area in which the structure is located at the time the structure was erected and updates thereto applicable to said structure.

6. The method for certifying the plumbing system of a structure of claim 1 wherein said inspecting step includes a visual inspection.

7. The method for certifying the plumbing system of a structure of claim 6 wherein said visual inspection is carried out by device for visual recording.

8. The method for certifying the plumbing system of a structure of claim 6 wherein said inspecting step further includes the use of sensors comprising pressure sensors, magnetic sensors, directional sensors, toxic gas sensors, hydrologic sensors, and combinations thereof.

9. The method for certifying the plumbing system of a structure of claim 8 wherein said inspection includes determination of conduit layout, grade obstructions, breaches in integrity and combinations thereof.

10. The method for certifying the plumbing system of a structure of claim 1 wherein said inspecting step includes recording said inspection data including accompanying code and integrity data as a function of time and location within the system;

11. The method for certifying the plumbing system of a structure of claim 1 wherein said comparing step includes comparing the inspected data against the requirements in the template.

12. The method for certifying the plumbing system of a structure of claim 1 wherein said certification step includes certification that said plumbing system complies with the building and variations therefrom.

13. The method for certifying the plumbing system of a structure of claim 1 wherein said certification step includes certification that said plumbing system complies with the plumbing codes and deviations therefrom.

14. The method for certifying the plumbing system of a structure of claim 1 wherein said certification includes determination of system integrity including identification of breaches thereof.

15. The method for certifying the plumbing system of a structure of claim 1 wherein said inspecting step is carried out at least in part using an inspection tool, which comprises a multi-lensed camera, a digital distance tracking device, and a plumb-sensor, and a date time imager.

16. The method for certifying the plumbing system of a structure of claim 1 wherein said inspection tool communicates with a central consol by way of radio-frequency or fiber-optics and the video recording includes on each frame thereof a date, time, a distance, and an elevation based upon a starting point in the system, and comprises multi-views of the internal periphery, joints, "T"s, "Y"s of the system.

17. A method for certifying the plumbing code compliance and plumbing system integrity of a water supply, or ground water/storm sewer, or sewage/drainage system, which service a building structure comprising:

(a) populating a data base with building codes derived from the plumbing code authority having jurisdiction over said structure;

(b) generating plumbing code certification requirements for said structure from information in said database;

(c) inspecting the water supply, or ground water/storm sewer, or sewage/drainage system, based upon plumbing code certification requirements to produce inspection data;

(d) comparing said inspection data with said plumbing code certification requirements to produce information relative to said requirements to determine the compliance of the water supply, or ground water/storm sewer, or sewage/drainage system, with said plumbing codes at the time the structure was erected, including updates;

(e) certifying said water supply, or ground water/storm sewer, or sewage/drainage system the condition of the system predicated upon a defined set of criteria to verify the compliance and integrity of the plumbing system including identifying non-compliance and/or defects, if any.

18. The method for certifying of claim 17 wherein said code certification requirements are generated using updated building plans of said structure.

19. The method for certifying of claim 17 wherein said populating step includes populating a template with plumbing codes in the area in which the structure is located at the time the structure was erected and updates thereto applicable to said structure and identifying grand fathered provisions of said plumbing codes applicable to the structure.

20. The method for certifying of claim 17 wherein said inspecting step includes a visual inspection.

21. The method for certifying of claim 20 wherein said visual inspection is carried out by device for visual recording.

22. The method for certifying of claim 17 wherein said inspecting step further includes the use of sensors comprising pressure sensors, magnetic sensors, directional sensors, toxic gas sensors, hydrologic sensors, and combinations thereof.
23. The method for certifying of claim 17 wherein said inspection includes determination of conduit layout, grade obstructions, breaches in integrity and combinations thereof.
24. The method for certifying of claim 17 wherein said inspecting step includes recording said inspection data including accompanying code and integrity data as a function of time and location within the system.
25. The method for certifying of claim 17 wherein said certification includes determination of system integrity including identification of breaches thereof.
26. The method for certifying of claim 17 wherein said inspecting step is carried out, at least in part, using an inspection tool, which comprises a multi-lensed camera, a digital distance tracking device, a plumb-sensor, and a date time imager.
27. The method for certifying of claim 17 wherein said inspection tool communicates with a central consol by way of radio-frequency or fiber-optics and the video recording includes on each frame thereof a date, time, a distance, and an elevation based upon a starting point in the system, and comprises multi-views of the internal periphery, joints, "T"s, and "Y"s of the system.
28. The method for certifying of claim 17 wherein said drainage/sewage system is certified from the fixtures to the connection with the main sewer line interconnect or septic system.

29. The method for certifying of claim 17 wherein said ground water/storm sewer system is certified from the accumulating receptacle to the main sewer line.
30. The method for certifying of claim 17 wherein said water supply is certified from the water main to the fixtures.